



Utah Department of Natural Resources

Annual Report 2022



Expecting the Unexpected

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Front cover: Antelope Island on Great Salt Lake – Photo courtesy the Division of Wildlife Resources

Back cover: Great Salt Lake microbialites in Bridger Bay, Antelope Island State Park – Photo courtesy of Michael Vanden Berg

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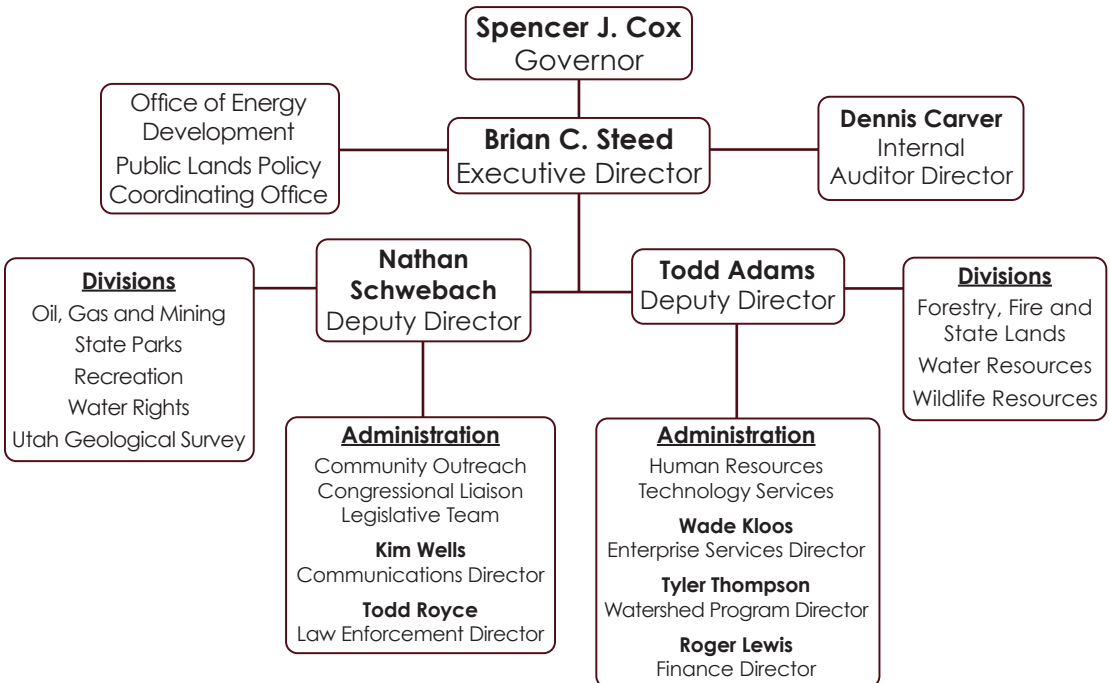
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* The Division of Recreation has been newly created. Previously, it was part of the Division of Parks and Recreation.

The separation is underway.

Information regarding Recreation programs including boating, off-highway vehicles and grants can still be found on the State Parks website stateparks.utah.gov.

Online Resources

Coming soon

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DEPARTMENT UPDATE

Executive Director's Commitment

Despite the continuation of a worldwide pandemic and extreme drought conditions that triggered unexpected challenges, the work of managing and protecting Utah's natural resources moved forward in 2021. Drought dominated much of the Department of Natural Resources' focus, impacting every division to some degree. Divisions worked in tandem to monitor the water supply and adjust as needed, including curtailing water use, changing fishing limits and recreation guidelines, asking for the public to take "drought actions" to stretch the water supply, calling for people to use good "Fire Sense" to reduce human-caused wildfires, and much more.

DNR staff responded with professionalism and dedication. And the public responded, saving billions of gallons of water as many residents, businesses, and institutions embraced the "yellow is the new green" ethic and let lawns go dormant. Drought provided a wake-up call to many who previously took water for granted and highlighted the need for collaboration and continued conservation as we work to manage this limited resource.

Conditions at the onset of wildfire season were bleak. Through a successful public information campaign, people were encouraged to exercise good "Fire Sense." As a result, human-caused starts decreased over 50%. Compared to the 2020 wildfire year, that translates into more than 500 wildfires that didn't happen. Hard work by firefighters led to 93% of all fires being caught at 10 acres or less.

As in 2020, much of our workforce continued to work remotely until June, when in-office attendance opened up. Telework has been permanently adopted by many of our employees who found productivity gains and work-life balance opportunities during this unexpected time.

DNR also has new leadership in the department (two deputy directors and the communications director) as well as several divisions (Forestry, Fire and State Lands, Water Resources and Wildlife Resources). The DNR family of seven divisions also grew! The Division of Parks and Recreation was separated into two divisions, and the Office of Energy Development and the Public Lands Policy Coordinating Office were aligned to provide closer coordination with DNR. We look forward to continuing to integrate these groups. We recognize our role in protecting our state's abundant natural resources and will continue to engage state, county and local officials; collaborate with community members, organizations and groups; and coordinate with our federal partners.

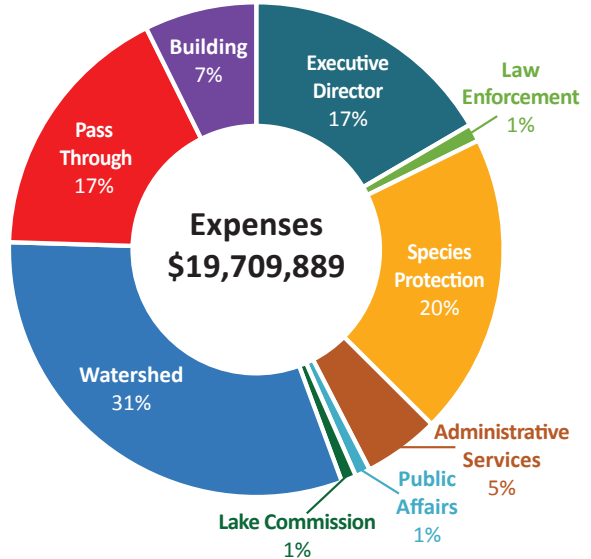
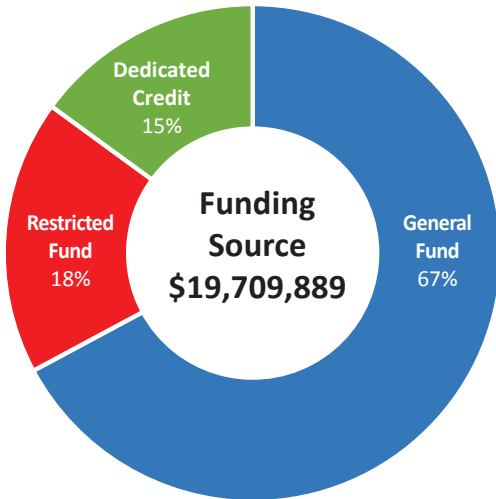


Brian C. Steed
DNR Executive Director



Department Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Department Case Study

Watershed Restoration Initiative Projects in Parleys Canyon Help Reduce Fire Risk

Problem: Communities in Parleys Canyon are threatened by wildfire.

Solution: Fuels reduction and wildlife habitat enhancement projects were completed in Parleys Canyon to help protect communities in Lambs Canyon and Summit Park from wildfire.

Outcome: Multiple partners came together through Utah's Watershed Restoration Initiative (WRI) to complete several projects surrounding vulnerable communities in Parleys Canyon this past year. These and future projects in this area will help to improve watershed health by reducing fire risk to communities and infrastructure, improve crucial fish and wildlife habitat and populations, increase water quality and quantity, and sustainability of natural resources. Project partners include: Snyderville Basin Special Recreation District, Rocky Mountain Power, Utah Division of Forestry Fire and State lands, Utah Division of Wildlife Resources, The Mule Deer Foundation, National Wild Turkey Federation, Rocky Mountain Elk Foundation, Wild Utah Project, Safari Club International, Sportsman for Fish and Wildlife, Utah Archery Association, Park City Fire District and WRI. For more information, visit watershed.utah.gov.



Looking Ahead

Active management of resources like watersheds, wildlife, water, minerals, oil, and gas allows the state to forecast challenges, solve complex opportunities, and anticipate and meet future needs. Here are some of the focus areas for the upcoming year:

- The Division of Forestry, Fire and State Lands will continue working to reduce human-caused wildfires, including working with public and private partners to implement forest restoration treatments.
- The Division of Oil, Gas and Mining will continue to apply appropriate regulations and alleviate adverse impacts of development and remediation.
- The Division of State Parks will continue providing quality outdoor recreation destinations to visitors. We can expect additional improvements of our parks' amenities, day-use areas, and lodging opportunities, as well as construction of two new state parks: Utahraptor and Lost Creek.
- The Division of Water Resources is continually monitoring drought conditions and impacts on the water supply and looking for ways to stretch this finite resource. Continued conservation is needed across all sectors to protect our quality of life and provide water security for future generations.
- The Division of Water Rights is continuing its efforts to bring clarity and certainty to existing water rights by continuing to build online transparent distribution accounting models, increasing our adjudication efforts, and enhancing our application processing to reduce processing times.
- The Division of Wildlife Resources is transforming the recently acquired Cinnamon Creek property into the state's newest wildlife management area.
- The Utah Geological Survey anticipates an increased need for objective geologic information on which to base sound policy related to safe and adequate water supplies and community resilience with respect to natural hazards.
- DNR is standing up the new Division of Recreation. As a stand-alone division from State Parks, the Division of Recreation will improve statewide coordination of the Off-Highway Vehicle and Boating programs in addition to coordinating regional recreation opportunities statewide.



DIVISION UPDATES



FORESTRY



OIL, GAS & MINING



STATE PARKS



WATER RESOURCES



WATER RIGHTS



WILDLIFE RESOURCES



GEOLOGICAL SURVEY

Utah Division of Forestry, Fire and State Lands

Mission Statement

The Division of Forestry, Fire and State Lands manages, sustains and strengthens Utah's forests, rangelands, sovereign lands and watersheds for its citizens and visitors.

Director's Commitment

This year has been a year full of resiliency, challenges and historical markings. Our staff has faced challenges on many levels and faced them with confidence. Wildfire and drought have dominated the conversations at all levels. The dedication and talent of our team are remarkable and strong, leading out in these unprecedented times to responsibly manage and protect lands in Utah.

The division implemented "Fire Sense" in 2021, the largest wildfire prevention campaign in the state's history, to combat a continual increase in human-caused fires. As a result, human-caused starts decreased over 50%. Compared to the 2020 wildfire year, that translates into more than 500 wildfires that didn't happen. Hard work by firefighters led to 93% of all fires being caught at 10 acres or less. And for the first time in over five years, the Division of Forestry, Fire and State Lands did not need to request supplemental funding from the Utah Legislature to cover the cost of wildfire suppression for the 2021 season. The statutory wildfire season in Utah was not extended but ended on Oct. 31, 2021, as stipulated by law, which hasn't happened for several years.

Shared Stewardship and the division's forestry programs continue to play a pivotal role in improving forest health and hazardous fuels mitigation. The division's goals and strategies to restore and sustain Utah's forests are strong. The division continues to work with local and federal partners to complete work across priority landscapes to protect communities and watersheds. We take pride in these relationships' shared opportunities to make Utah's forests healthier and more resilient.

Utah's sovereign lands continue to be a focal point. The division has seen an increase in visitation since the pandemic began. Attention has been drawn to Great Salt Lake as the state has experienced extreme drought conditions and the lake has hit historic lows. Sovereign lands highlighted a successful year with projects that contributed to water quality improvement, invasive plant species management, shoreline habitat improvement, and the development of recreational trail systems and access points to sovereign land areas. The division is honored to now own Fremont Island, which is managed as state land for the first time in history.



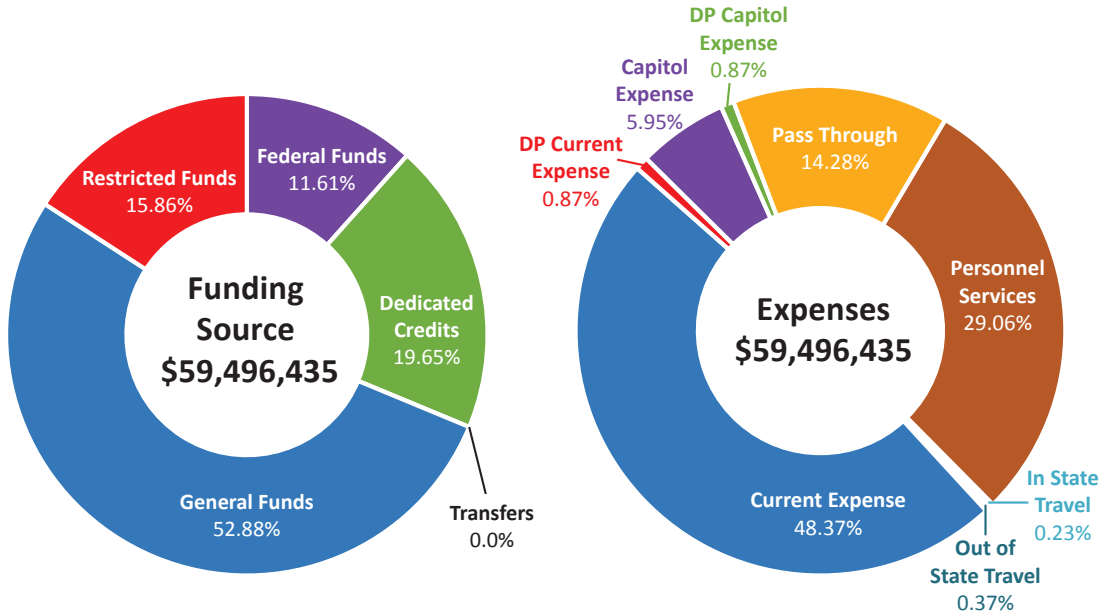
It's a pleasure to be part of such an excellent, high-functioning team here at Forestry, Fire and State Lands. I look forward to the future and all the opportunities that await.

Jamie Barnes
Division Director / State Forester



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Forestry – Manage the State's cooperative forestry programs, including Shared Stewardship, Forest Health, Forest Legacy, and Urban & Community Forestry. Administer the State's Forest Practices Act, including forest practices notifications and operator registry and implement Utah's Forest Action Plan.

Wildland Fire – Responsible for wildfire management and suppression on Utah's state and private lands in partnership with county and municipal governments.

Lone Peak Conservation Center (LPCC) – Provides the State's wildland fire resources, including highly trained crews to both fight wildfires as well as undertake natural resource projects, such as fuels reduction.

Sovereign Lands – Administers public, private and commercial uses of State-owned lakebed and riverbed lands in accordance with the public trust doctrine and principles of multiple use and sustained yield.

Case Studies

Reducing Fire Risk

Problem: Human-caused fires have increased during the past few years.

Solution: Add depth to the prevention staff, and look at opportunities to increase messaging to the public.

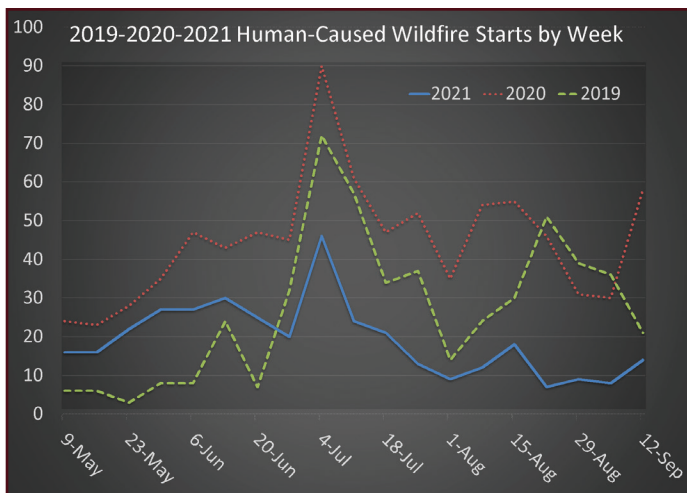
Outcome: A building block was approved for a full-time prevention coordinator. Shared Stewardship has provided funding for a full-time prevention specialist. The legislature provided funding to seek a contractor for communication assistance with the public. A contract was awarded to Bonneville Communications. So far the results from the Fire Sense campaign have been successful with a **51% reduction** in human-caused wildfires.

Soldier Summit Forest Legacy Project

Problem: Like many other states, Utah has been losing private forestlands and their benefits due to fragmentation and conversion to other land uses. Large tracts of undeveloped, private forestland in the Soldier Summit area are at risk of being subdivided due to increasing pressure for second homes and cabins from the nearby Wasatch Front. Subdivision leads to increased Wildland Urban Interface issues and increased potential for wildfire that could spread across the Wasatch Plateau.

Solution: The Forest Legacy Program (FLP) is a USDA Forest Service program designed to protect environmentally important forest areas threatened by conversion to non-forest uses. In partnership with the Forest Service, FFSL administers conservation easements that allow private landowners to keep their properties intact and continue traditional uses of the land (timber, ranching, hunting), which contributes to rural economies. FLP helps sustain healthy forest landscapes, protect water supplies for downstream users and maintain wildlife habitat connectivity. FFSL foresters develop relationships with private forest landowners through our Forest Stewardship Program, which helps identify crucial landscapes eligible for the FLP.

Outcome: Nearly 4,900 acres of forestland near Soldier Summit are now forever protected thanks to a conservation-minded landowner and the Forest Legacy Program. The property contains prime elk habitat and is part of an important elk migration corridor. Ongoing land management activities will improve wildlife habitat, reduce the potential for catastrophic wildfire and enhance watershed health.

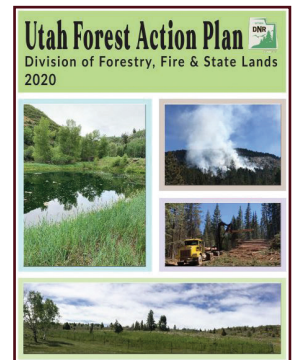


Utah Forest Action Plan

Problem: FFSL is responsible for protecting and sustaining healthy forests across the state. We do this in partnership with the USDA Forest Service, other federal and state agencies, landowners and communities. Every 10 years, we need to assess conditions and trends on all forests, identify threats and develop goals and strategies to guide our management efforts with partners for the next decade.

Solution: In partnership with the USDA Forest Service, FFSL has agreed to develop a Utah Forest Action Plan (FAP) every 10 years that updates information about our forests and develops new goals and strategies for the forests. The process for developing the Utah FAP aims to be open and participatory. The objective is to create a 10-year FAP that informs and guides all partners across the state and is also adaptable as partners work together to implement activities.

Outcome: An FFSL team planned and implemented a process in early 2020 to engage partners and develop the new FAP by the end of the year. Despite the challenges of COVID, the team completed a draft plan by August, conducted review processes with the Utah Forest Stewardship Coordinating Committee and the Utah NRCS State Technical Advisory Committee, and finalized the Utah Forest Action Plan 2020 by the end of the year. The Utah FAP's goals and strategies align with Utah's Shared Stewardship Agreement and are intended as guides for all partners and all forests statewide.



Sovereign Lands Program Case Study

Problem: Woody invasive plants in the riparian zone of the Colorado River armor the stream-bank when unnecessary, consume outsized volumes of water, and harm fish and wildlife habitat quality by transitioning a braided stream channel into a single steam channel.

Solution: An interagency partnership between FFSL, BLM Aquatics and the private sector used LiDAR data to identify abandoned side channels that are most likely to become watered again by the removal of tamarisk. Conservation Corps teams from USU removed tamarisk in those abandoned side channels, allowing water to flow more freely during ordinary spring runoff.



Outcome: Abandoned side channels remain free of tamarisk. Ongoing work now involves monitoring and control of noxious weeds. During spring runoff, the channel becomes inundated in the lowland areas, providing habitat for native wildlife like the northern leopard frog, great blue heron and big-horn sheep. Bank incision at the mouth of the side channel dictates that we will need to wait for an extraordinary spring snowmelt to observe the desired channel reformation.

Utah Division of Oil, Gas and Mining

Mission Statement

The Division of Oil, Gas and Mining regulates and ensures industry compliance and site restoration while facilitating oil, gas and mining activities.

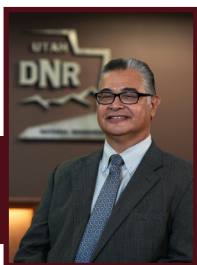
Director's Commitment

Over the past year, we all faced many challenges, from Covid-19 and drought to changes in political leadership. Division staff has worked hard to keep the machine of government humming while moving faster and farther down the road of progress than before. Although specific challenges cannot always be predicted, the nature of the energy and minerals extractive industries makes it fairly certain that economic and environmental challenges are part of the cycle of business. The best position for the agency and staff to adopt is to be expectant of changing circumstances and adapt as needed to address challenges and resolve matters as timely as possible.

As a state government entity, a part of our adaptability and resiliency is dependent on collaboration with helpful partners. We receive substantial technical support from the national organizations that we are part of, including the Interstate Oil and Gas Compact Commission (IOGCC), the Interstate Mining Compact Commission (IMCC), and the Groundwater Protection Council (GWPC). We also have sound working relationships with federal agencies, including the U.S. Bureau of Land Management, the U.S. Environmental Protection Agency, and the Office of Surface Mining, Regulation, and Enforcement. We additionally collaborate with industry trade associations such as the Utah Petroleum Association and the Utah Mining Association. Maintaining effective communication and participating in mutually beneficial dialogue with all of these groups ensures that we can continue a primary objective of the organization to ensure the safe and responsible development of Utah's vast underground energy and mineral resources.

The future is always uncertain to some degree, but it is our intent to apply appropriate regulation and alleviate adverse impacts of development in a fair and consistent fashion as possible. We also wish to do so without unduly burdening the coming generations with the costs and liabilities of remediation of past developmental impacts.

The commitment from division staff to continue meeting our responsibilities is unwavering. We will continue to ensure responsible development of our underground energy and mineral resources while protecting public health, safety, and welfare, and preserving the environment. While we hope global crises are soon behind us, we have the capacity to recover quickly from difficulties and use them as opportunities for improving efficiencies and how business gets done.

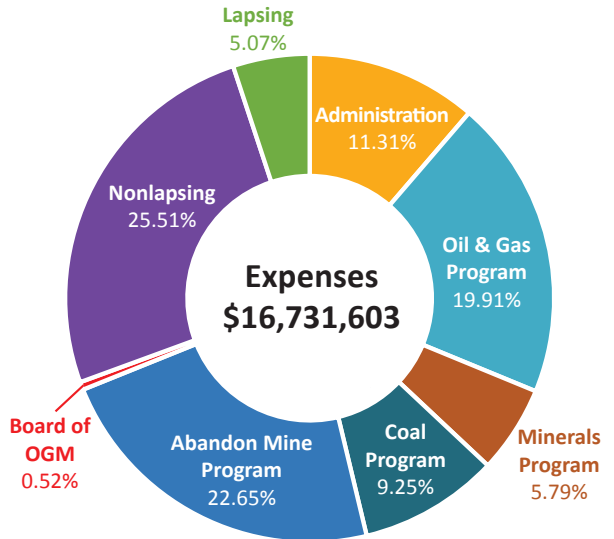
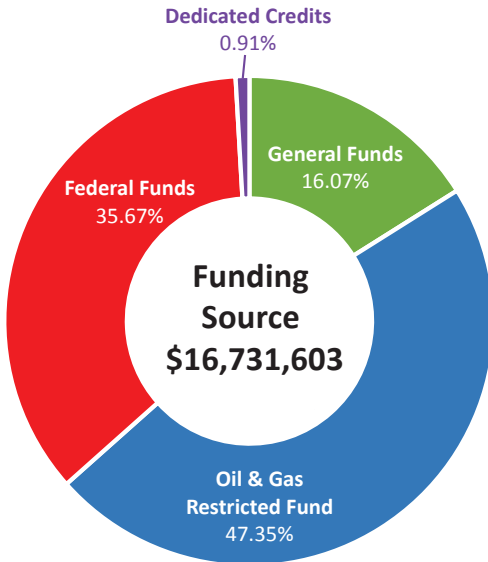


John R. Baza
Division Director



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Oil and Gas – Permits, inspects and monitors oil and gas wells statewide. Staff maintains a database of information regarding ownership, production, disposition and status of oil and gas exploration, production wells and facilities.

Coal and Mineral Permitting – Issues permits and monitors coal and mineral mining operations to ensure compliance with federal laws and regulations.

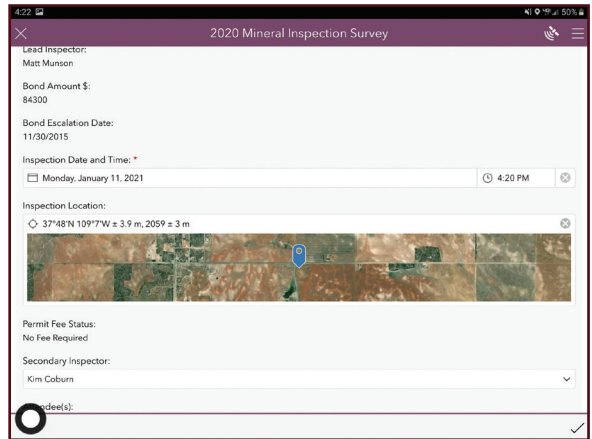
Abandoned Mine Reclamation – Identifies abandoned mines and permanently seals off access to reduce accidents and hidden hazards. Division staff also provide outreach programs to schools and communities educating the public about the dangers of abandoned mines.

Case Studies

Field Inspection Application

Problem: No streamlined and standardized process for collecting Minerals Program inspection information at the field level. Inspectors often relied on handwritten notes from field monitoring, then compiled and recreated those observations for data entry later relying on field notes and memory.

Solution: Created and implemented Minerals Program field inspection data collector application using electronic tablets and ESRI GIS software to ensure inspector time is used efficiently.

A screenshot of a mobile application titled "2020 Mineral Inspection Survey". The interface is divided into several sections. The top section contains fields for "Lead Inspector:" (Matt Munson), "Bond Amount \$:" (84300), and "Bond Escalation Date:" (11/30/2015). Below this is a section for "Inspection Date and Time:" with a date picker set to "Monday, January 11, 2021" and a time picker set to "4:20 PM". The next section is "Inspection Location:" which includes a map view showing a satellite image of a landscape with a blue location pin. Below the map, the coordinates "37°48'N 109°7'W ± 3.9 m, 2059 ± 3 m" are displayed. The bottom section contains "Permit Fee Status:" (No Fee Required) and "Secondary Inspector:" (Kim Coburn). At the very bottom, there is a field for "Inspection Notes:" with a circular icon and a checkmark.

Outcome: Implementing the data collector app has saved time and improved performance.

Sustainable Funding

Problem: No reliable, ongoing revenue stream for Minerals and Oil and Gas programs that was sustainable through volatile commodity pricing cycles.

Solution: Senate Bill 133 – promoted by private sector industry trade associations that reallocates a small portion of severance tax already being paid by the oil, gas, and mining industries back to those state government agencies responsible for ensuring appropriate energy and mineral development.

Outcome: FY22 is the first year of implementation of Senate Bill 133, but all signs point to a potentially valuable revenue stream that will allow certain agencies to be more self-reliant on tax obtained from energy and mineral production.



Oil and Gas Database

Problem: Need for a standardized inspection form to accurately document all Oil and Gas Program inspections.

Solution: Use GIS tools to interface with the database to develop an electronic form standardizing the collection and document of inspections.

Outcome: Inspections are accurately and consistently documented using a standardized electronic form, which is automatically transferred to the division database. Automation ensures consistent record keeping according to division policy. Inspection staff completed an average of 12% more inspections through the first three months of deployment when compared to previous years' data.



Lisbon Valley Mine Bankruptcy

Problem: Due to Covid-19, the Lisbon Valley copper mine lost a large investment at a critical time and went out of business. The nature of their operation, which extracts copper through a heap-leach system, became a danger for contaminating nearby streams and other water supplies if the acids were not properly managed.

Solution: In cooperation with the mine operators and the surety company, division staff went before the Board of Oil, Gas and Mining to revoke the permit while allowing the surety to fund the remaining company staff to properly route and handle the leach acids. Division staff were on-site weekly, and company representatives provided weekly updates to division leadership. After getting a new investor, Lisbon Valley worked to obtain a new permit so mining could resume. Because the permit had been revoked, the entire permitting process had to start over. Division staff worked diligently to issue a new permit in a matter of months allowing mine operators to resume operations on the new schedule anticipated by the investors.

Outcome: No contamination or offsite impacts occurred, and the company was able to get their permit reinstated quickly, saving over 75 good-paying jobs in one of the state's poorest counties.



Utah Division of Parks and Recreation

Mission Statement

The Division of Parks and Recreation preserves and provides natural, cultural, and recreational resources for the enjoyment, education, and inspiration of this and future generations.

Director's Commitment

From the majestic mountaintops of Wasatch Mountain State Park to the dizzying depths of the San Juan River at Goosenecks State Park, Utahns and visitors alike flock to our state parks and recreation destinations. It is the mission of Utah State Parks to provide opportunities for our guests to experience first-class facilities and unmatched customer service while relaxing and recreating at any one of our locations.

In 2020, we learned how vital the role of state parks was to the well-being of our visitors. In 2021, we built on the momentum of last year's historic growth with an unprecedented investment by the Utah State Legislature, providing funding for two new state parks, along with extensive infrastructure expansion. Thanks to this extraordinary funding opportunity, we are pleased to welcome Utahraptor State Park in Grand County and Lost Creek State Park in Morgan County to the Utah State Parks family.

In addition to construction and infrastructure improvements, 2021 presented Utah with significant water-related challenges. Despite the drought, most of Utah's water-based state parks were still able to continue offering services through the end of the season. At the same time, staff and rangers took a proactive approach to education and public outreach with regards to safety. We extend our thanks to our guests who worked with staff to follow safety regulations and made every effort to visit with respect.

Utah State Parks offer something for everyone. We strive to create opportunities for all our visitors to play, explore, learn, connect and be inspired by the lifelong memories of time spent together with family and friends.

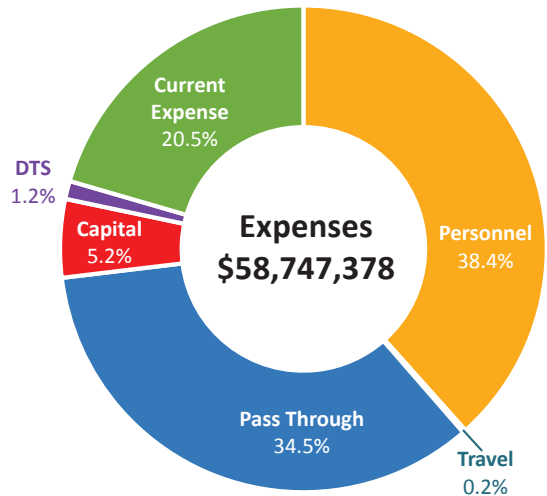
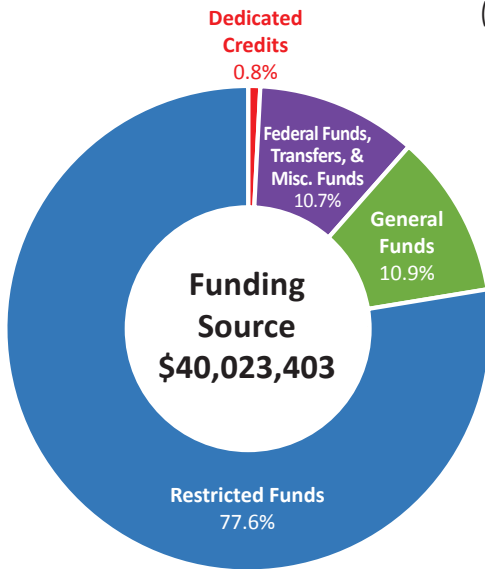


Jeff Rasmussen
Division Director



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Expenditures exceed revenues due to significant state park investment and improvement projects utilizing money from the Park's revenue account.

Key Services

46 Utah State Parks – The Division of State Parks manages Utah's state park system, which includes operations, planning, administration and protection of 46 state parks, museums and recreation parks.

Heritage Program – This program administers our historical, archeological and paleontological properties within the state park system, working with heritage entities around the state to preserve our shared cultural resources.

Law Enforcement Program – This program provides public safety services through law enforcement and safety education and outreach for visitors to our 46 state parks, while also providing services to 80,000 miles of off-highway vehicle trails and 668 square miles of freshwater lakes and reservoirs.

Strategic Planning – The division works to develop and enhance facilities to meet guest needs and expectations. This unit provides guidance for both short- and long-term site management strategies for the protection and interpretation of each park's natural and cultural resources. Planning works to ensure safe and enjoyable visitor experiences while providing new opportunities for visitors.

Publications – The division oversees the design and compilation of dozens of publications including park brochures and a statewide field guide. The purpose of these publications is to adequately inform and prepare our constituents for the conditions and opportunities for our parks and programs.

New Media and Website – The division provides an abundance of online information, tools and services. Customers can discover park information and events, reserve a campsite, purchase an annual pass and engage in our online community on social media.



Case Studies

Expansion and Visitation

Problem: Utah's state parks continue to see record-breaking visitation numbers. This increase in visitation puts an added strain on the available amenities at state parks. With year-over-year visitation growth, it is essential that our state parks expand their infrastructure to follow this visitation trend.



Solution: The Utah State Legislature made the unprecedented investment of nearly \$120 million into state parks during the 2021 General Session. This money goes directly toward park improvement and expansion projects to meet this increase in demand.

Outcome: Of that money, \$36.5 million is set aside for the creation of two new state parks: Utahaptor State Park (located just northwest of Moab in the Dalton Wells and Willow Springs area) and Lost Creek State Park (10 miles northeast of Croydon in Morgan County). Planning for these parks has already begun with construction expected to begin in 2022. The remaining funds will go toward expansion and improvement projects throughout the state. Many of these projects are in the planning process with some having already broken ground. Projects include new campgrounds, day-use areas, parking lots, bathrooms and beach areas.

Customer Service and Hiring

Problem: Increases in park visitation, along with the recent creation of two additional state parks, have placed additional needs on the number of employees required to run our state parks. Many of the areas where our state parks are located don't have adequate housing. Utah State Parks depends on motivated staff to provide our visitors with the premier customer service experience they have come to expect.

Solution: Division leadership has worked to continue outreach efforts and the hiring of seasonal and volunteer staff. Additionally, pay and housing have been a focus as a means of attracting qualified personnel. The division has also looked for opportunities to transfer existing positions from some areas to others where the need was more critical.

Outcome: Over the recent years, the division has identified seven positions that could be moved to other more critical areas of the state. We have also created 11 new full-time positions that will help us continue managing outdoor recreation areas in a manner that is enjoyable to our visitors and makes our state leaders proud of our state parks. Adjusting pay rates and adding housing at our state parks is also a priority.



Facilities and Maintenance

Problem: Facility and maintenance needs have increased due to high demand and continued use. An increase in visitation is good for state parks, however, this puts increased strain on our facilities.

Solution: Resources including equipment, materials and staff are needed to replace and maintain our facilities, and this will be a top priority as we move forward. Utah State Parks takes pride in offering clean and maintained facilities to our visitors.

Outcome: Well-maintained facilities last longer, save time and money, and are in high demand by our customers and visitors. Facilities that are maintained to the highest standards are also better cared for by our visitors.



Utah Division of Water Resources

Mission Statement

The Division of Water Resources plans, conserves, develops and protects Utah's water resources.

Director's Commitment

In 2021, Utah experienced some of the worst water supply conditions on record and relied on water stored in reservoirs, which underscores the importance of water planning. The drought had wide-sweeping impacts across the state. We banded together as state and federal agencies, water suppliers and conservancy districts, cities and residents to respond to the extreme drought. Utahns heeded the call, reducing their water use and collectively saving billions of gallons of water.

This extreme drought has caused us to recognize how essential water is, reevaluate how we use water, and motivate us to conserve more. It has become apparent to me how important it is that we work together more, collaborate more and communicate even more than we ever did before. Policy discussions and conversations about water conservation have advanced a decade in recent weeks – which is fantastic. To fast-track water conservation, we are focusing on four areas: integrating land use and water planning, installing secondary meters, implementing a statewide “flip your strip” turf buyback program, and agricultural optimization.

Conservation is critical as we work to safeguard our water supply for current and future generations. Utah was once again named the fastest-growing state in the nation. Maximizing the state's limited water supply to meet the needs of our rapidly growing state requires strategic planning and water management strategies. A group of talented water professionals is at the heart of the division's planning and development efforts.

A significant planning document, the Water Resources Plan, was published this year. This plan is the result of years of data gathering, modeling and working collaboratively with other water stewards. It looks 50 years out and seeks to identify when and where water will be needed throughout the state. To meet Utah's water needs, the division seeks balanced solutions that include water conservation, optimization, agriculture conversion and development. This balanced approach will ensure a safe, reliable water supply now and into the future.

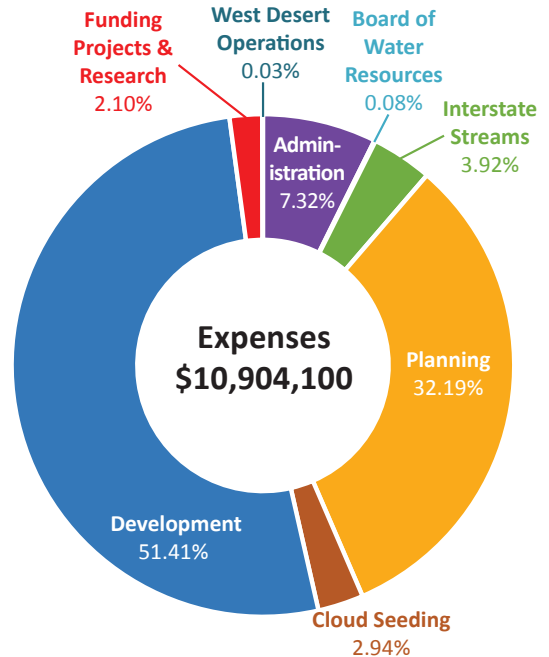
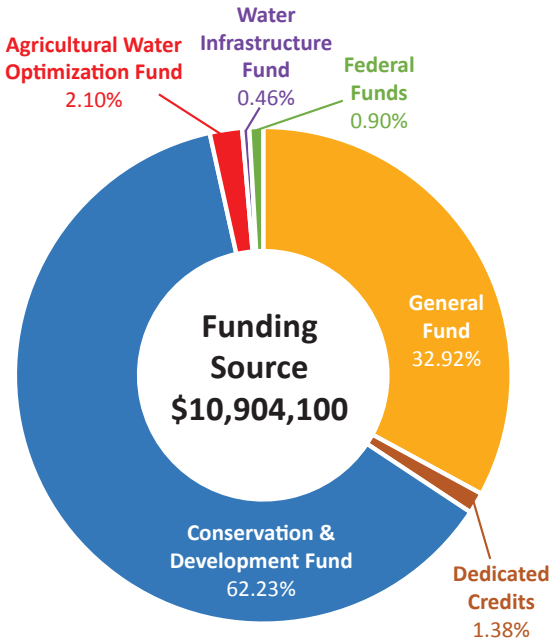


Candice Hasenyager
Division Director



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Water Education and Conservation – Working with local water agencies, individuals and professional groups to develop and implement water conservation programs to reduce per capita water use. The division partners with several water districts to run the Slow The Flow campaign and operate the Utah Water Savers statewide rebate program and posts a Weekly Lawn Watering Guide via social media.

Water Development and Conservation Funds – The Board of Water Resources administers three revolving state water development and conservation funds that have contributed over \$900 million to help build over 1,600 water projects all across the state.

Technical Assistance – Providing technical assistance to Utah water users. Areas of expertise include design and construction engineering, geology, drafting, geographic information systems, feasibility studies and planning reports.

Water Planning – Tracking Utah's current and long-term water-related needs, preparing inventories of municipal and industrial water use and water-related land use, and performing water use studies.

Hydrology and Modeling – Developing and maintaining the state water budget. This accounts for and estimates all of the water used in the state over the last 30 years. In addition, our staff develops geographic information system applications, water demand/supply and hydrologic models to assist in the state's planning needs.

Interstate Streams – Helping to defend and protect Utah's right to develop and use its entitlements in the Colorado, Bear and Columbia rivers.

Cloud Seeding – Regulating and promoting cloud seeding by augmenting natural precipitation, which enhances snowpack.

Case Studies

Board Project – Draper Irrigation Co.

Problem: Draper Irrigation Company did not have enough water to meet projected future demands and lacked funding to pursue a solution.

Solution: The company determined that installing secondary water meters could reduce water use and help the existing water supply meet future demand.

Outcome: Water Resources staff prepared and presented a report to the Board of Water Resources, who provided low-interest rate funding allowing the Draper Irrigation Company to purchase and install over 2,000 meters, which reduces water demand and stretches the existing supply.



Bear River Model

Problem: To effectively manage and share the Bear River, stakeholders need a trusted, consistent and reliable source of information regarding river flows and what affects flows.

Solution: A Bear River Model that will help stakeholders understand variables that affect river flows and support planning for future flow scenarios.

Outcome: Water Resources staff involved stakeholders, including Wyoming, Idaho and PacifiCorp, in developing the model, thus gathering valuable input and helping to establish trust. The result is a robust, functional water model that will be used to make data-driven decisions.



Utah Water Savers

Problem: Conservation is essential to stretch the water supply and help meet future demand. However, cost can be a deterrent to implementing water-saving measures.

Solution: A statewide rebate program was launched in 2018 that reimburses residents for purchasing water-saving toilets and smart irrigation controllers. In fiscal year 2021, Water Resources staff continued to administer this rebate program made possible by legislative funding and partnerships with the state's four largest water conservancy districts.

Outcome: Division staff partner with Jordan Valley Water Conservancy District in using Utah-WaterSavers.com for rebate hosting. Central Utah Water Conservancy District, Jordan Valley Water Conservancy District, Washington County Water Conservancy District and Weber Basin Water Conservancy District assist with rebate application reviews within their service areas. Through these partnerships, the Utah Water Savers Rebate Program has processed 21,095 smart controller rebates and 2,098 toilet rebates, saving an estimated 316,425,000 gallons of water in outdoor irrigation and 27,274,000 gallons of water indoors since the program's inception. In fiscal year 2021, the Utah Water Savers program processed 5,492 smart irrigation controllers and 848 low-flow toilet rebates that will save an estimated 93,404,000 gallons of water annually. (EPA estimates 15,000 gallons are saved annually per controller and 13,000 gallons are saved annually through toilet replacement).

Water Storage – Baker Dam

Problem: Baker Dam, located north of Veyo in Washington County, did not meet the state's minimum dam safety requirements as determined by the Division of Water Rights. The dam needed a new spillway and drain system estimated to cost over \$4,000,000.

Solution: Water Resources staff prepared and presented a report to the Board of Water Resources, who provided dam safety grants and loan funds to help the owner, Baker Reservoir Company, to cover the cost of the needed safety upgrade.

Outcome: Baker Dam now meets the state dam safety requirements and will be able to safely route flood flows and seepage through its new spillway and drain system.



Utah Division of Water Rights

Mission Statement

The Division of Water Rights promotes order and certainty in administering the beneficial use of Utah's water.

Director's Commitment

As the Utah State Engineer and Director of the Division of Water Rights, I am responsible for the general administrative supervision of the waters of the state. This includes the measurement, appropriation, apportionment, and distribution of those waters. The State Engineer's Office has nearly 125 years of experience administering the waters of the state. As this last year began, we expected the water year might be one of the lowest of record. I cannot imagine needing to face a year like this without our well-established water rights system, our multigenerational system infrastructure, and our amazing Water Rights' staff. As we administered the limited supply of water, our water rights system proved its effectiveness as water deliveries were cut lower than had ever happened in many areas of the state. It was a difficult distribution year, but the water users responded and our developed water accounting models helped staff provide a transparent accounting of water deliveries in several water systems.

Our adjudication staff continued to move forward to bring clarity and certainty to the water rights of record. In addition, after an 18-year effort of negotiation and settlement, we are closer to the conclusion of the Navajo Federal Reserve Water Rights Settlement. The final work has begun to prepare the State Engineer's recommendation to obtain a decree from the District Court as part of the General Stream Adjudication efforts.

After responding to the COVID-19 pandemic last year, we did not expect this following year to be a year with the highest number of new water right applications filed. Economic growth and development have resulted in many rural areas of the state seeing large increases of new projects and domestic type applications. Our staff has worked diligently to process the applications while also developing new automated tools to reduce overall processing times.

I am grateful to the staff of the Division of Water Rights. They deserve recognition for the great work they continue to do and adapting in one of the driest years of record and highest number of applications.

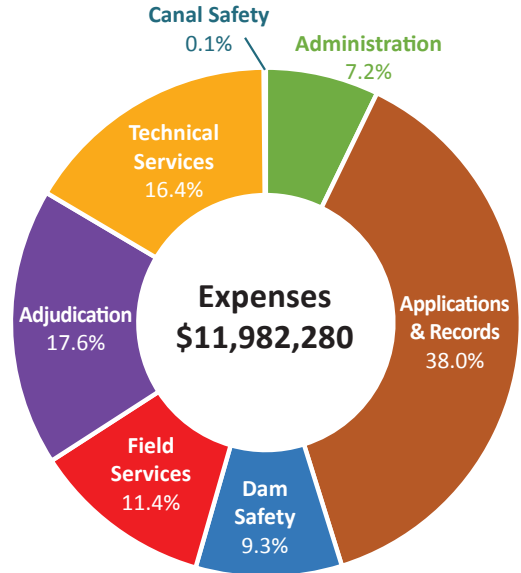
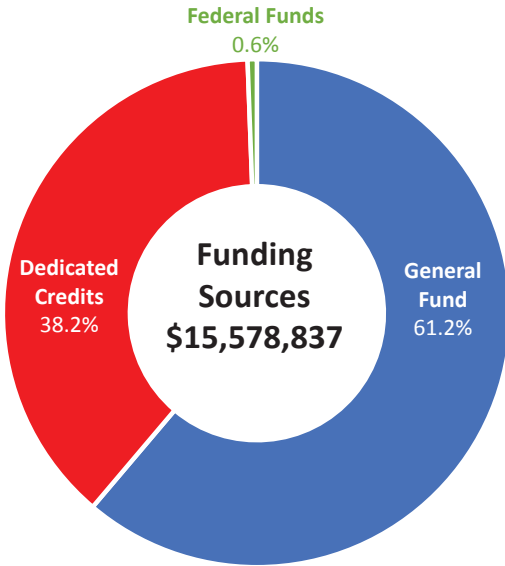


Teresa Wilhelmsen
Division Director / State Engineer



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Water Right Applications – Process water right applications and maintain permanent records for all water rights in the state. Assist the public to access water right information and complete application forms required by the agency.

Distribution and Measurement of Water – Oversee water commissioners and provide support where the agency is directly involved in the daily distribution of water among water right holders.

Adjudication – Present to the district court a proposed determination of water rights within hydrologic areas of the state where such investigations have been ordered by the court and obtain an adjudication order decreeing those water rights.

Dam Safety – Physically inspect and monitor operation of public and private dams, approve new dam construction, consult and approve dam upgrades and intervene in emergencies. Inspections and monitoring efforts are based on each dam's hazard rating for potential loss of life and property.

Stream Channel Alterations – Process permits to alter the banks or beds of natural streams under terms of the Utah Code and a general permit from the US Army Corps of Engineers.

Geothermal – Process permits to use geothermal resources in the state. Inspect facilities and monitor pressure tests.

Well Drilling Regulations and Licensing – Oversee licensing and regulation of water well drillers in the state.

Studies and Technical Services – Collect water resources data for surface water, ground-water, and water use throughout the state. Perform studies to determine water availability and management alternatives. Support the integration of data automation technology in operations of the agency.

Enforcement – Administer the division's water rights, dam safety and stream alteration enforcement program as authorized by statute and administrative rule. Investigate violations of Utah water right law and initiate actions which encourage compliance.

Case Studies

Distribution

Problem: Distribution and accounting of water diverted from natural rivers and streams can be complex and confusing to the public or even to water rights officials tasked with making water rights decisions.

Solution: Division staff developed the Water Commissioner Accounting Tool (Water CAT) to provide an online record of distribution accounting.

Outcome: The criteria and logic behind distribution, as well as the results of the accounting, are now available online for several river distribution systems. Water CAT provides easy access to distribution information, transparency in the distribution process, and tools to understand the water rights and distribution of the water.



Applications and Records

Problem: Economic activity resulted in a record number of applications filed with the division (up 33% from the previous year) all requiring agency review and action.

Solution: The State Engineer assessed the long-standing application process and made modifications to classify incoming applications to identify those that are uncontested and those that can be expedited with minimal review in order to optimize the review process.

Outcome: The State Engineer was able to act on a greater number of applications within a given timeframe while providing the appropriate level of statutory oversight and protection to existing rights.

Adjudication

Problem: Rebuild and reshape the division's adjudication efforts to deliver completed proposed determinations at an accelerated pace in the Utah Lake/Jordan River General Stream Adjudication.

Solution: The State Engineer invested in increased training and support for existing staff, recruited a team of engineers dedicated to the delivery of proposed determinations and expanded to four adjudication field teams.

Outcome: The State Engineer published three proposed determinations in FY2021 with twice that number planned for FY2022. This reorganization effort resulted in an effective process to accelerate the division's adjudication efforts.



Utah Division of Wildlife Resources

Mission Statement

The Division of Wildlife Resources serves the people of Utah as trustee and guardian of the state's fish and wildlife.

Director's Commitment

If there's anything we've learned over the past year, it's that we can adapt very quickly to changing circumstances. We've tried to plan and prepare for the unexpected, while always hoping for better days ahead. I'm so proud of how DWR employees have risen to multiple challenges and met uncertainty with resilience and hard work.

I'm relatively new to this position. My education focused on wildlife and range management and, for the past 18 years, my career has been in wildlife law enforcement. This combination has uniquely prepared me to serve the people of Utah. I've always had a passion for the outdoors and wildlife conservation, and I hope to promote and instill respect for wildlife and wild places in everyone I interact with.

I recognize that Utah's wildlife is facing immense challenges right now and that challenges will continue to come our way. Drought, in particular, poses a widespread threat to many fish and wildlife species. As an agency, we are doing everything in our power — through habitat restoration, guzzler refills, permit changes, emergency fishing limits and more — to help address drought-related concerns and to continue providing the hunting and fishing opportunities that many Utahns enjoy.

I'm thankful to our employees for their expertise, professionalism and dedication. And I'm particularly grateful to our customers who choose to hunt and fish here in Utah. You are the backbone of wildlife conservation, and do more to help fund and support wildlife management than anyone else. I am excited to work hard alongside you as we continue to adapt and do our best to conserve and manage Utah's incredible wildlife.

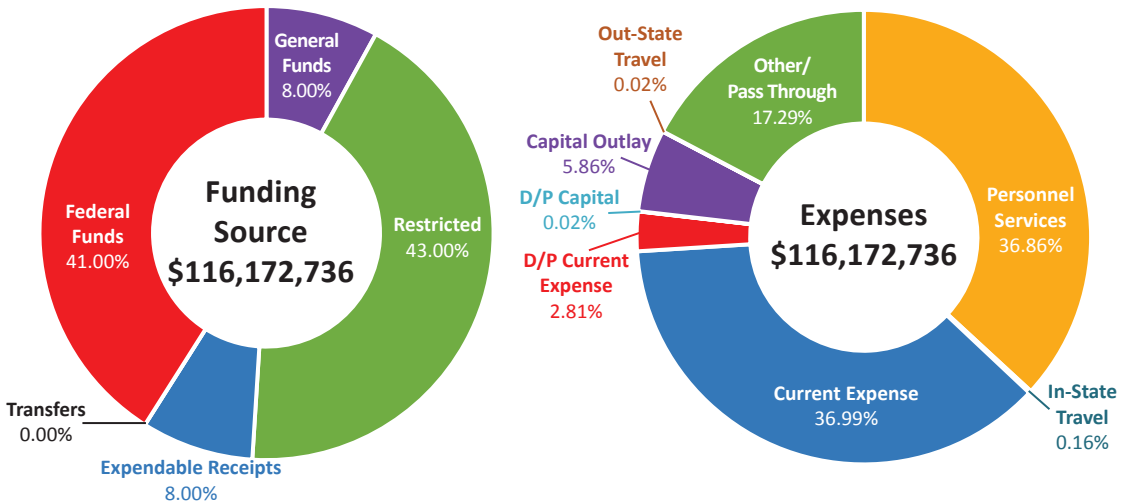


J. Shirley
Division Director



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Certificates of Registration – Issues licenses and certificates of registration to falconers, private pond owners and people who want to own exotic pets.

Community Fisheries Program – Partners with local governments to provide community fishing opportunities for Utah youth and families.

Dedicated Hunter Program – Provides additional hunting opportunities for Utah deer hunters who perform volunteer service benefiting wildlife.

Fisheries Experiment Station – Monitors Utah's wild fish populations and the division's fish hatcheries. Provides hatcheries with disease assessment and treatments.

George S. and Dolores Doré Eccles Wildlife Education Center – Features an education center (801-451-5536) and nature trails to educate visitors about the Great Salt Lake wetlands and active wildlife management.

Great Basin Research Center and Seed Warehouse – Conducts rangeland-rehabilitation research. Also stores, mixes and distributes seed for restoration projects.

Hatcheries – Owns and operates Utah's state fish hatcheries.

Hunter Education – Trains individuals in the safe handling of firearms and responsible hunting ethics. The Lee Kay Center for Hunter Education (801-972-1326) and the Cache Valley Hunter Education Center (435-753-4600) provide Hunter Education courses and public shooting ranges.

Licenses and Permits – Sells hunting and fishing licenses and permits.

Natural Heritage Program – Identifies and monitors sensitive plant and animal species, and maintains a database for making natural resource decisions.

Website and Communications – Provides many online services and tools. Customers can visit wildlife.utah.gov to buy hunting and fishing licenses, download regulation guidebooks and find a wealth of information about Utah's wildlife.

Wildlife Recreation Program – Offers many wildlife-viewing events as well as hands-on clinics and seminars that provide instruction on hunting, fishing, shooting and more.

Case Studies

Using Technology to Improve Efficiency and Flexibility

Problem: When the COVID-19 pandemic began, the DWR successfully shifted its entire public-input and regulatory process online, using a mix of Google Hangouts and YouTube. Participants liked some of the changes so much that they asked to continue doing things the new way, even after the pandemic subsided. Other participants were less satisfied and wanted a complete return to pre-pandemic meeting procedures.

Solution: To satisfy as many people as possible – and allow for maximum public input – the DWR proposed using a hybrid of virtual and in-person meeting options. The Utah Wildlife Board approved the change. All presenters and committee members have the option to attend in person or online. All proposed regulation changes are pre-recorded and posted online well in advance of the meeting. Those who wish to comment online may do so before the meeting. Those who wish to comment during the meeting must do so in person.

Outcome: Although the hybrid public meetings are new, they appear to improve efficiency, reduce meeting times and provide more flexibility to all participants. The DWR will continue to monitor the hybrid meeting process for efficiency and effectiveness.



Conserving Wildlife Management Areas

Problem: More people have ventured outdoors during the COVID-19 pandemic, which has resulted in the increased use and abuse of wildlife management areas and other DWR lands. The DWR's conservation officers – and officers from other law enforcement agencies – have received numerous calls about illegal camping, littering, vandalism, drug use, domestic violence, unauthorized target shooting, wildfires and habitat degradation on WMAs.

Solution: To address these issues, the DWR took steps to clarify the purpose of WMAs and to identify which public activities are permissible. WMAs serve as critical habitats and rest areas for Utah's wildlife. They also help minimize depredation and provide places for the public to hunt and fish. The DWR used a variety of outreach tools — in the form of news releases, podcasts, social media posts and additional signage — to educate the public about the WMAs.

Outcome: During the summer of 2021, the DWR experienced fewer wildfires on its WMAs. While this was very encouraging, there are still some enforcement challenges related to littering, vandalism and other unauthorized uses. The DWR is planning additional measures to communicate the purpose and importance of Utah's WMAs and their role in helping Utah's wildlife.

Reducing the Effects of Drought

Problem: Over the past year, Utah's drought conditions have steadily worsened. By the end of FY 2021, more than 90% of the state was experiencing extreme or exceptional drought. Drought is a problem for many reasons. It may lead wildlife to seek food and water in urban areas – causing conflicts with humans – and more animals may die due to competition for increasingly limited resources.

Solution: The Utah Division of Wildlife Resources has taken a number of steps to address and mitigate the effects of drought on the state's fish and wildlife populations. These measures include working with the agricultural community to alleviate wildlife damage, passing emergency daily-limit changes at fisheries, recommending fewer general-season deer permits, rehabilitating lands burned by wildfires and more.

Outcome: Although drought still persists, the DWR is optimistic that the measures taken to date will help to reduce the effects of drought on both wildlife and the public. To view updates on DWR's drought-related efforts visit wildlife.utah.gov/drought.html.



Utah Geological Survey

Mission Statement

The Utah Geological Survey provides timely scientific information about Utah's geologic environment, resources, and hazards.

Director's Commitment

In an environment with an ever-growing population, the state faces multiple challenges to provide the citizens with necessary services and resources. To that end the Utah Geological Survey (UGS) seeks to provide objective, foundational information to enable the legislature, local governments and the public to understand the world around them and make informed decisions.

UGS assists government, industry and the general public by gathering, interpreting and publishing geologic information. Our goal is to see that geologic information is used as part of wise stewardship of public and private resources. Knowledge of the location and resource potential of Utah's geologic commodities – including oil and gas, coal, metals, industrial minerals and groundwater – as well as the location, magnitude, and frequency of geologic hazards such as landslides and earthquakes, are essential inputs to local and statewide plans incorporating likely future resource development, urban growth and infrastructure expansion.

Major policy and management issues for the division in the coming year include:

- Groundwater – Where is it? What is the quality? How much and how fast can it be used?
- Earthquake preparedness – Increasing public awareness about the dangers.
- Geologically safe areas – For homes, business, and recreation.
- Increased understanding of our natural resources – such as critical and core minerals.
- Great Salt Lake – Wetlands and hydrologic systems related to the lake.

We continue to improve public accessibility to critical geologic information through new web apps and interactive maps. UGS website use continues to increase as more information is uploaded to our site, with now over 1 million webpage visits per year. The UGS will continue to pursue opportunities to apply new technologies to meet the diverse needs of a growing state.

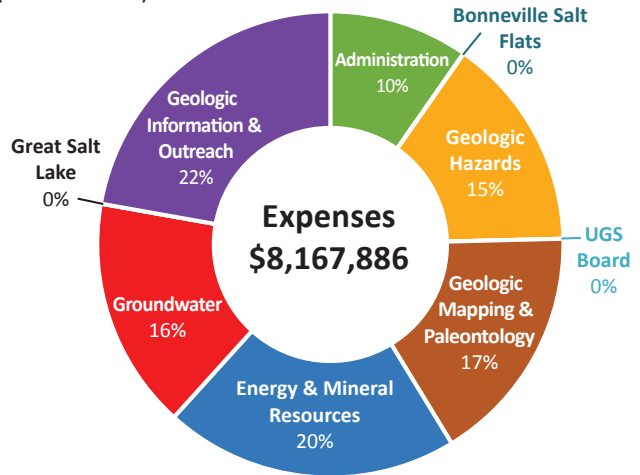
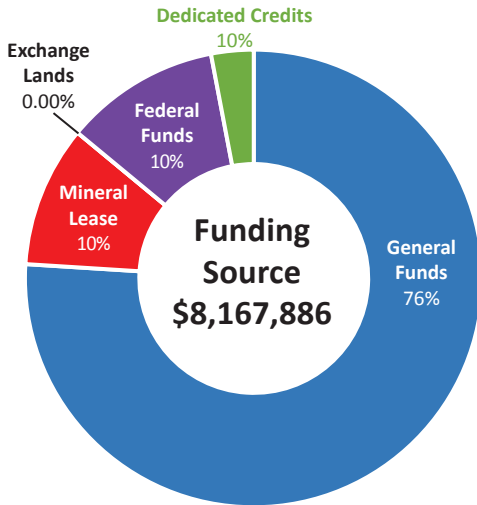


Bill Keach
Division Director / State Geologist



Financials

Fiscal Year Ending June 30, 2021
(Unaudited)



Key Services

Utah Core Research Center (UCRC) – The UCRC serves as a repository and laboratory for Utah well cuttings and core, providing petroleum, coal and geologic samples for industry and academic research and public education.

Geologic-Hazard Assistance – The Geologic Hazards Program assists governments in responding to geologic-hazard emergencies, reviews geologic-hazard reports for school districts, investigates geologic hazards and prepares geologic-hazard maps for use by local governments, consultants, and the public.

Natural Resources Map & Bookstore – In addition to offering a selection of publications and maps on Utah geology and other natural resource topics, the Bookstore is the only retail outlet that maintains an inventory of topographic maps for the entire state of Utah.

Water Resource/Environmental Evaluations – The Groundwater Program evaluates groundwater resources and protects drinking-water supplies by investigating the environmental impacts of waste disposal, storage and treatment facilities for local, state and federal agencies.

Public Inquiry – The Geologic Information and Outreach Program provides information on Utah geology and geologic issues to governments, industry, educators and the general public.

Energy and Mineral Evaluations – Geologists specializing in Utah's various energy resources and minerals investigate and provide energy and mineral resource information on county, state or federal lands to local, state and federal agencies.

Paleontological Services – The Paleontology Section evaluates paleontological sites, excavates critical fossils in danger of destruction and issues paleontological excavation permits.

Case Studies

Groundwater Data

Problem: Lack of data to evaluate increased applications for groundwater development and large-scale underground wastewater disposal systems in the Bryce Canyon National Park area.

Solution: Conduct hydrogeologic study to characterize aquifer properties, water chemistry, groundwater levels and fluctuations, surface water flows, groundwater recharge sources and flow paths, and groundwater-surface water connection. Analyze nitrate concentrations and groundwater flow to determine the effects of additional underground wastewater disposal systems. Prepare aquifer classification petition for Garfield County to present to Division of Water Quality Board.

Outcome: Body of data to support science-based decisions on water management issues, including groundwater supply and fluctuations, surface water resources and septic-tank density.



Geologic Hazards Guidance

Problem: Most Utah local governments do not have geologic hazard ordinances in place to protect the public.

Solution: Develop a model geologic hazard ordinance for Utah.

Outcome: Local governments, such as Morgan County, are adopting the model geologic hazard ordinance.



Geologic Emergency Response

Problem: Flooding from a severe thunderstorm produced extensive damage in Zion National Park. Due to limited available park resources, the park requested geologic emergency response and advice from UGS.

Solution: Provide requested geologic emergency response and scientific advice the morning after the flooding.

Outcome: Emergency response and advice provided to protect park visitors and staff; additional assistance provided afterward with several UAV flights and 3D modeling of the flooding and previous landslides that closed several park trails.

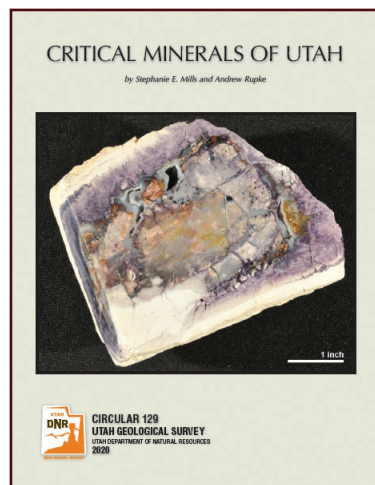


Critical Minerals in Utah

Problem: The U.S. Geological Survey created a list of 35 "critical minerals" essential to our security and economy but vulnerable to supply disruptions due in part to a reliance on imports. UGS wanted to determine which of these 35 minerals might be located in Utah.

Solution: Review reports from over 150 mining districts to determine which of the 35 critical minerals were located in Utah and evaluate the quality/quantity of the resources and potential economic development opportunities.

Outcome: UGS Circular 129, *Critical Minerals of Utah*, a comprehensive overview of critical mineral potential in Utah.





Mission Statement

DNR helps ensure the quality of life of Utah residents by managing and protecting the state's abundant natural resources by:

Protecting the certainty and security of Utah's water;

Elevating the health of our lands, watersheds and wildlife;

Managing public lands and enhancing outdoor recreation; and

Expanding Utah's energy and minerals portfolio.